

Applicant: Rozenoyer *et al.*  
For: METAL MATRIX COMPOSITE

ABSTRACT OF DISCLOSURE

5           A metal matrix composite and method wherein a reinforcement preform is made by  
partially sintering ceramic particles and a metal matrix material is infused into the preform.  
In one example, the resulting isotropic metal matrix composite has an ultimate tensile  
strength of at least 80 ksi in all directions, a high temperature strength retention of at least  
85% up to 500°F, and a high temperature stiffness retention of at least 95% at temperatures  
10 up to 500°F. Preferably, the preform has an average pore size of 1-5 microns, an average  
interconnected porosity 35-45 vol.%, a 100% open porosity, and a flexure strength of  
greater than 7 ksi.